

The Eco-Friendly Flat Roof Restoration Solution

The Envir-O-Sil Roof Restoration System is the ideal solution for areas regulated by strict environmental standards. Utilizing low VOC High-Solids Silicone 412, the Envir-O-Sil System provides outstanding performance, UV protection, and weatherability—with minimal impact on the environment. Suitable substrates for this system include modified bitumen, built-up roofs, single-ply, EPDM, and spray polyurethane foam.

The Envir-O-Sil System offers facility managers and property owners a variety of money-saving benefits. It does more than just stop leaks—it effectively reduces maintenance costs, lowers building energy consumption, improves performance, and extends service life. Best of all, the Envir-O-Sil System costs significantly less than a traditional roof replacement.

Basic Uses

The Envir-O-Sil roof restoration system is an eco-friendly and low VOC system designed to restore and protect a variety of commercial and industrial roof surfaces from weathering and moisture intrusion. It is especially effective as a protective coating membrane for entire roof surface, to use for spot repair, and to provide additional protection for flashing.

Features/Benefits

- Stops leaks and vastly improves performance
- Costs significantly less than a total roof replacement
- Substantially reduces maintenance and energy costs
- Extends service life by restoring the existing roof membrane
- Industry-leading UV stability, reflectivity, and durability
- High-solids content, Low VOC, and environmentally safe
- Long-term warranty options available
- Provides minimal interruption to business

Suitable Substrates

- Built-Up Roofs
- EPDM
- Modified Bitumen
- Single-Ply
- Spray Polyurethane Foam

SURFACE PREPARATION

To ensure maximum adhesion, the roof is pressure washed to remove all dirt, dust, debris, and other foreign contaminants.

1

SEAMS/DETAILS

Seams and flashing details are coated with a thick “rubber-like” mastic to help withstand the expansion and contraction of the roof structure.

2

BASE COAT

A base coat of High-Solids Silicone 412 provides the system with exceptional flexibility, adhesion, and protection against moisture intrusion.

3

TOP COAT

A top coat of High-Solids Silicone 412 forms a seamless, watertight, membrane that provides industry-leading UV protection, reflectivity, and resistance to ponding water.

4



AVAILABLE



QUICK SPEC

ADHESION TEST

To ensure a successful application, an adhesion test is recommended to ensure maximum adhesion of the High-Solids Silicone 412 base coat to the existing roof substrate(s).

PRE-INSPECTION

Before system application, pre-inspect the roof for necessary repairs. The inspection should include, but not be limited to:

- HVAC flashing
- Proper drainage
- Single-ply seams
- Roof penetrations
- Sign or display anchorage
- Drains and location of drains
- Water leakage
- Seams, terminators, reglets
- Parapet roof detail
- Wet or damp insulation
- Coping and flashing
- Sleepers and pitch pockets

INSTALLATION TIPS

- All roof surfaces to be coated must be properly cleaned and prepared. Pressure washing at 3000-4000 psi is recommended.
- Existing coatings must be checked for proper adhesion. Before application, any loosely adhered coating must be removed and bare surfaces must be prepared, cleaned, and checked for compatibility. In some cases, the use of a primer may be necessary.
- High-Solids Silicone 412 may be applied using medium nap roller, synthetic brush, tank spreader, or airless spray equipment.
- Apply High-Solids Silicone 412 base coat to clean, dry, sound surfaces free of contaminants and other foreign matter.
- Depending on temperature and humidity, allow 2-8 hours for the High-Solids Silicone 412 base coat and top coat to cure. For technical assistance, contact your American WeatherStar Field Representative for more information.

STORAGE & HANDLING

Keep product sealed, stored in a dry, cool place away from heat, sparks, open flame, and moisture. Keep material stored above 65°F (18°C) and on wood pallets and/or off concrete surfaces.

TECHNICAL DATA

HIGH-SOLIDS SILICONE 412	
Solids by Volume	96% ± 2
Elongation	170 ± 25
Tensile Strength	450 ± 50
Reflectivity	Initial .87
Emissivity	Initial .89
VOC	<50 Grams/Liter
Permeability	>4 +
Clean Up	Mineral Spirits

Please see product data sheets for complete technical data.

SUBSTRATE	TERM	BASE COAT	INTERMEDIATE COAT	TOP COAT	TOTAL DFT*
BUR Modified Bitumen	12 years	High-Solids Silicone 412	-	High-Solids Silicone 412	30
	15 years	High-Solids Silicone 412	-	High-Solids Silicone 412	35
	20 years	High-Solids Silicone 412	-	High-Solids Silicone 412	40
EPDM Single-Ply	12 years	High-Solids Silicone 412	-	High-Solids Silicone 412	20
	15 years	High-Solids Silicone 412	-	High-Solids Silicone 412	30
	20 years	High-Solids Silicone 412	-	High-Solids Silicone 412	35
Spray Foam	12 years	High-Solids Silicone 412	-	High-Solids Silicone 412	20
	15 years	High-Solids Silicone 412	-	High-Solids Silicone 412	30

*Dry film thickness (DFT) is rounded to the nearest mil and is theoretical. Actual DFT varies depending on substrate, application technique, and waste factor.

NOTE: This document is intended as an overview of installation procedures only. Please refer to application guidelines for complete installation information. Published technical information is subject to change without notice. Please visit www.americanweatherstar.com or contact your Field Representative for current technical data.

